

MARKED UP VERSION OF THE AMENDED CLAIMS

(Version with marking to show changes made)

1. (currently amended) An improved arrangement to configure construction components characterised on being constituted as from a combination of plastic and metal, consisting of a plastic enveloping casting ~~(2) or (12) or (22) or (32) or (42) or (52) or (62) or (72) or (82) or (92) or (102) or (112)~~ molded around and adhering to and surrounding an internal metallic structure ~~(3) or (13) or (23) or (33) or (43) or (53) or (63) or (73) or (83) or (93) or (103) or (113)~~, said plastic enveloping casting also being molded around and adhering to and surrounding and incorporating a metallic laminate or plate ~~(4) and (4') or (84) or (114) and (114')~~ for reinforcement in bolted joints.

2. (cancelled) An improved arrangement to configure construction components, according to the first claim, characterised in that a resulting combination may adopt a form of rails and beams (1), pipes (10), rods (20), channels (30), angles (40), flatbars (50), "Z" (60), profiles (70), beams (80), corrugated plates (90), smooth plates (100) or structures (110).

3. (currently amended) A construction component comprising an internal metallic structure exhibiting a planar face;
metallic reinforcement rods passing through the metallic structure;
a metallic laminate disposed parallel to the planar face;
a plastic enveloping casting molded around, surrounding, and adhering to
the internal metallic structure and the metallic laminate;
bolted joints passing through the metallic laminate, wherein the metallic laminate furnishes a reinforcement.

4. (canceled) The construction component according to claim 3, wherein the construction component assumes a form of rails and beams (1), pipes (10), or rods (20).

5. (previously presented) The construction component according to claim 3, wherein the construction component assumes a form of channels (30), angles (40), flatbars (50), or "Z"-shapes (60).

6. (previously presented) The construction component according to claim 3, wherein the construction component assumes a form of profiles (70), or

beams (80).

7. (previously presented) The construction component according to claim 3, wherein the construction component assumes a form of corrugated plates (90), smooth plates (100) or structures (110).

8. (currently amended) An I-beam structure comprising
a metallic I-beam having an upper face and having a lower face;
a first metallic laminate disposed above the upper face at a distance;
a second metallic laminate disposed below the lower face at a second distance;
a cast plastic envelope molded around and surrounding the metallic I-beam ,
the first metallic laminate, and the second metallic laminate and having an outer shape of an I-beam.

9. (currently amended) The I-beam structure according to claim 8 wherein the cast plastic envelope comprises a member of the group consisting of phenoplastes, polycarbonate, polyethylene, resins and mixtures thereof, and further comprising

metallic reinforcement rods disposed at outer edges and at inner edges of the metallic I-beam.

10. (previously presented) The construction component according to claim 3 wherein the internal metallic structure is of T-shape, and wherein the planar face is the top of the T .

11. (previously presented) The construction component according to claim 3 wherein the internal metallic structure is of T-shape, and wherein the plastic enveloping casting increases in thickness from the bottom of the stem of the T to the top of the stem of the T.

12. (currently amended) A construction component comprising an internal metallic structure incorporating metallic reinforcement rods and exhibiting a planar face;
a metallic laminate plate disposed in front of the planar face;
a plastic enveloping casting molded around, surrounding, and adhering to the internal metallic structure and the metallic laminate plate.

13. (currently amended) The construction component according to

claim 12 wherein the internal structure ~~[[is]]~~ includes a channel.

14. (previously presented) The construction component according to claim 12 wherein the internal structure is of a Z-shaped cross-section.

15. (previously presented) The construction component according to claim 12 wherein the internal structure is profile having a rectangular cross-section.

16. (previously presented) The construction component according to claim 12 wherein the internal structure is made of a corrugated steel G-40 having a resistance value of $2,800\text{Kg/cm}^2$.

17. (new) An improved arrangement to configure construction components

comprising

an internal metallic structure forming a profile having a direction including metallic reinforcing rods defining end edges in the direction of the profile and junction edges defining internal junctions of the profile;

a plurality of plate shaped metallic structures connecting the metallic reinforcing rods such that each metallic reinforcing rod is attached to one plate shaped metallic structure or attached to three plate shaped metallic structures;

a metallic laminate plate disposed on the outside of one reinforcing rod attached to three plate shaped metallic structures and disposed on the outside of two of the three plate shaped metallic structures attached to the one reinforcing rod for reinforcement in bolted joints; and

a plastic enveloping casting surrounding the internal metallic structure such that the internal metallic structure is embedded in the plastic enveloping casting by being molded with the plastic of the enveloping casting.

18. (new) The improved arrangement according to claim 17 for forming an I-beam structure wherein

the metallic reinforcement rods are furnished as a first three metallic reinforcement rods disposed in parallel at equal distances from each other, defining a first middle metallic reinforcement rod and two first outer metallic reinforcement rods, and spanning a first plane and as a second three metallic reinforcement rods disposed in parallel at said equal distances

from each other, defining a second middle metallic reinforcement rod and two second outer metallic reinforcement rods, and spanning a second plane, wherein the first plane is disposed parallel to the second plane and wherein the first three reinforcement rods project onto the second three metallic reinforcement rods in a projection from the first plane in a direction perpendicular onto the second plane;

wherein the plurality of plate shaped metallic structures includes

first two plate shaped metallic structures disposed between the first middle metallic reinforcing rod and the respective two first outer metallic reinforcing rods,

second two plate shaped metallic structures disposed between the second middle metallic reinforcing rod and the respective two second outer metallic reinforcing rods,

a connecting plate shaped metallic structure disposed between the first middle metallic reinforcing rod and the second middle reinforcing rod thereby forming a metallic I-beam;

wherein the metallic laminate plate is disposed neighbouring to that side of the first two plate shaped metallic structures disposed relative remote to the connecting plate shaped metallic structure, and further comprising

a second metallic laminate plate is disposed neighboring to that side of the second two plate shaped metallic structures disposed relative remote to the connecting plate shaped metallic structure, wherein a cast plastic envelope is molded around and surrounds the metallic I-beam, the first metallic laminate plate and the second metallic laminate plate and said cast plastic envelope having an outer shape of an I-beam.

REMARKS

Claims 1, 3, and 5 through 16 continue to be in the case.

Claims 2 and 4 are being cancelled.

Claims 1, 3, 8, 9, and 12 are being amended.

New claims 17 and 18 are being submitted. Claim 17 is based on claim 1 and Fig.2. Claim 18 is based on Fig.2

The new claims 17 and 18 are deemed to define the present invention over the art of record based on features shown in Fig. 2 of the present application.

Applicant's attorney thanks the Examiner Basil Katcheves for the personal interview kindly granted on November 12, 2003. The courtesies exchanged during the interview are very much appreciated. It was noted

during the interview that the reference Van Ausdall does not teach that a plastic molded to an outside of a metallic structure. Therefore it appears that the molding of plastic surrounding a metallic profile clearly defines over the Van Ausdall reference.

Claims 1 and 2 stand rejected under 35 U.S.C. 102 (b) as being anticipated by Pollard.

Applicant respectfully disagrees. The Pollard reference does not show the metallic laminate or plate required in claim 1. Claim 1 has been further modified to further distinguish over Pollard.

Claim 2 is being cancelled.

Claims 3 to 8 stand rejected under 35 U.S.C. 103(a) as being unpatentable over reference Van Ausdall.

Applicant respectfully disagrees. Claim 3 as amended requires that:
“metallic reinforcement rods passing through the metallic structure;
a metallic laminate disposed parallel to the planar face;
a plastic enveloping casting molded around, surrounding, and adhering to
the internal metallic structure and the metallic laminate;”.

Applicant urges that Van Ausdale fails in addition to the points made in the Office Action also to teach “metallic reinforcement rods passing through the metallic structure”

and

“a plastic enveloping casting molded around, surrounding, and adhering to the internal metallic structure and the metallic laminate”.

Therefore it is believed that claim 3 clearly defines the invention over the reference Van Ausdall.

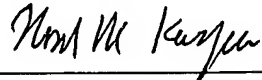
As to claim 8 the Office Action states that Van Ausdall discloses two laminates (fig. 7:63). This is not borne out by the language of the reference Van Ausdall. Van Ausdall in column 5, lines 54 and 55 refers to “demountable end plates 63 and 64”. The demountable end plates of Van Ausdall clearly do not teach “a cast plastic envelope molded around and surrounding the metallic I-beam , the first metallic laminate, and the second metallic laminate” as expressly required in claim 8.

Reconsideration of all outstanding rejections is respectfully requested.

All claims as presently submitted are deemed to be in form for allowance and an early notice of allowance is earnestly solicited.

Respectfully submitted,

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